

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-21. (canceled)

22. (currently amended) ~~An gearless cable-operated~~ elevator without machine room, the elevator comprising:

an ~~[[cage]]~~ elevator car;

a counterweight;

a plurality of parallel ~~carrier cables~~ hoisting ropes that are not enclosed by a common sheath;

~~[[cage]]~~ elevator car guide rails;

counterweight guide rails;

a drive sheave; and

a counter sheave;

wherein the ~~[[cage]]~~ elevator car is configured to accommodate human passengers,

wherein the ~~[[cage]]~~ elevator car and the counterweight are supported by the plurality of parallel ~~carrier cables~~ hoisting ropes,

wherein the ~~[[cage]]~~ elevator car is guided by the ~~[[cage]]~~ elevator car guide rails,

wherein the counterweight is guided by the counterweight guide rails,
wherein the drive sheave and the counter sheave are spaced apart from
each other,

wherein the plurality of parallel ~~carrier cables~~ hoisting ropes wraps at
least partially around the drive sheave a first time, at least partially around the
counter sheave a first time, at least partially around the drive sheave a second
time, and at least partially around the counter sheave a second time,

wherein the drive sheave is configured to act on the plurality of parallel
~~carrier cables~~ hoisting ropes in order to move the ~~[[cage]]~~ elevator car and the
counterweight,

wherein each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier~~
~~cables~~ is a hoisting ropes comprises steel wires ~~[[cable]]~~,

wherein each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier~~
~~cables~~ hoisting ropes has a nominal diameter greater than 5 mm and less than
7 mm,

wherein the drive sheave includes semicircular grooves,

wherein the semicircular grooves include undercut portions,

wherein the undercut portions have a width greater than 1 mm and less
than 3 mm,

wherein the drive sheave is configured so that the plurality of parallel
~~carrier cables~~ hoisting ropes runs in the semicircular grooves, and

wherein a ratio of a diameter of the drive sheave to a nominal diameter of each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier cables~~ hoisting ropes is greater than or equal to 30:1 and less than ~~or equal to~~ 40:1.

23. (currently amended) The elevator of claim 22, wherein the ratio of the diameter of the drive sheave to the nominal diameter of each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier cables~~ hoisting ropes is substantially 34:1.

24. (currently amended) The elevator of claim 22, wherein the elevator is configured for ~~[[cage]]~~ elevator car loads less than or equal to 2,000 kg.

25. (currently amended) The elevator of claim 22, wherein the elevator is configured for ~~[[cage]]~~ elevator car loads greater than or equal to 300 kg and less than or equal to 1,000 kg.

26. (previously presented) The elevator of claim 22, wherein an axis of rotation of the drive sheave is parallel to an axis of rotation of the counter sheave.

27. (previously presented) The elevator of claim 26, wherein a plane in which the drive sheave rotates is displaced from a plane in which the counter sheave rotates.

28. (previously presented) The elevator of claim 22, wherein the drive sheave and the counter sheave are arranged horizontally with respect to each other, or

wherein the drive sheave and the counter sheave are arranged vertically with respect to each other.

29. (previously presented) The elevator of claim 22, wherein the elevator is configured so that the drive sheave is higher than the counter sheave.

30. (currently amended) The elevator of claim 22, wherein a suspension ratio of the [[cage]] elevator car is 1:1 or 2:1.

31. (currently amended) The elevator of claim 22, wherein the drive sheave and the counter sheave are operatively attached to the [[cage]] elevator car.

32. (currently amended) The elevator of claim 31, wherein a suspension ratio of the [[cage]] elevator car is 1:1, 2:1, or 4:1.

33. (currently amended) The elevator of claim 22, wherein the drive sheave is operatively attached to a top of the ~~[[cage]]~~ elevator car, and wherein the counter sheave is operatively attached to the top of the ~~[[cage]]~~ elevator car.

34. (currently amended) The elevator of claim 22, wherein the drive sheave is operatively attached to a bottom of the ~~[[cage]]~~ elevator car, and wherein the counter sheave is operatively attached to the bottom of the ~~[[cage]]~~ elevator car.

35. (previously presented) The elevator of claim 22, wherein the counter sheave serves as a distancing deflection sheave.

36. (currently amended) ~~An gearless cable-operated~~ elevator without machine room, the elevator comprising:

- a ~~[[cage]]~~ elevator car;
- a counterweight;
- a plurality of parallel ~~carrier cables~~ hoisting ropes that are not enclosed by a common sheath;
- ~~[[cage]]~~ elevator car guide rails;
- counterweight guide rails;

a drive sheave; and

a counter sheave;

wherein the ~~[[cage]]~~ elevator car is configured to accommodate human passengers,

wherein the ~~[[cage]]~~ elevator car and the counterweight are supported by the plurality of parallel ~~carrier-cables~~ hoisting ropes,

wherein the ~~[[cage]]~~ elevator car is guided by the ~~[[cage]]~~ elevator car guide rails,

wherein the counterweight is guided by the counterweight guide rails,

wherein the drive sheave and the counter sheave are spaced apart from each other,

wherein the plurality of parallel ~~carrier-cables~~ hoisting ropes wraps at least partially around the drive sheave a first time, at least partially around the counter sheave a first time, at least partially around the drive sheave a second time, and at least partially around the counter sheave a second time,

wherein the drive sheave is configured to act on the plurality of parallel ~~carrier-cables~~ hoisting ropes in order to move the ~~[[cage]]~~ elevator car and the counterweight,

wherein each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier-cables~~ hoisting ropes comprises steel wires ~~[[cable]]~~,

wherein each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier~~
~~cables~~ hoisting ropes has a nominal diameter greater than 5 mm and less than
7 mm,

wherein the drive sheave includes semicircular grooves,
wherein the semicircular grooves include undercut portions,
wherein the undercut portions have a width greater than 1 mm and less
than 3 mm,

wherein the drive sheave is configured so that the plurality of parallel
~~carrier-cables~~ hoisting ropes runs in the semicircular grooves, and

wherein a ratio of a diameter of the drive sheave to a nominal diameter of
each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier-cables~~ hoisting
ropes is substantially 30:1.

37. (currently amended) ~~An gearless-cable-operated~~ elevator without
machine room, the elevator comprising:

- a ~~[[cage]]~~ elevator car;
- a counterweight;
- a plurality of parallel ~~carrier-cables~~ hoisting ropes that are not enclosed
by a common sheath;
- ~~[[cage]]~~ elevator car guide rails;
- counterweight guide rails;
- a drive sheave; and

a counter sheave;

wherein the [[cage]] elevator car is configured to accommodate human passengers,

wherein the [[cage]] elevator car and the counterweight are supported by the plurality of parallel ~~carrier cables~~ hoisting ropes,

wherein the [[cage]] elevator car is guided by the [[cage]] elevator car guide rails,

wherein the counterweight is guided by the counterweight guide rails,

wherein the drive sheave and the counter sheave are spaced apart from each other,

wherein the plurality of parallel ~~carrier cables~~ hoisting ropes wraps at least partially around the drive sheave a first time, at least partially around the counter sheave a first time, at least partially around the drive sheave a second time, and at least partially around the counter sheave a second time,

wherein the drive sheave is configured to act on the plurality of parallel ~~carrier cables~~ hoisting ropes in order to move the [[cage]] elevator car and the counterweight,

wherein each [[cable]] hoisting rope of the plurality of parallel ~~carrier cables~~ hoisting ropes has a nominal diameter greater than 5 mm and less than 7 mm, and

wherein a ratio of a diameter of the drive sheave to a nominal diameter of each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier cables~~ hoisting ropes is greater than or equal to 30:1 and less than ~~or equal to~~ 40:1.

38. (currently amended) The elevator of claim 38, wherein each ~~[[cable]]~~ hoisting rope of the plurality of parallel ~~carrier cables~~ is a hoisting ropes comprises steel wires ~~[[cable]]~~.

39. (previously presented) The elevator of claim 38, wherein the drive sheave includes semicircular grooves.

40. (previously presented) The elevator of claim 39, wherein the semicircular grooves include undercut portions.

41. (previously presented) The elevator of claim 40, wherein the undercut portions have a width greater than 1 mm and less than 3 mm.

42. (new) The elevator of claim 22, wherein a plane in which the drive sheave rotates is oriented differently than planes defined by side walls of the elevator car, and

wherein a plane in which the counter sheave rotates is oriented differently than the planes defined by the side walls of the elevator car.